

Development of Ambulatory Quality Assurance Program Using Computerized Medical Records

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ABSTRACT

As part of the computerization of the ambulatory teaching facility for our residency program, we have successfully utilized a comprehensive computerized medical records system to develop a specific quality assurance program. Our QA program includes allergy audits, health screening audits, drug utilization and recall audits, and nursing care plan audits. With a computerized QA program, specific question about individual patients as well as questions regarding our patient population are quickly addressed. Also, our routine health screening has been greatly enhanced.

INTRODUCTION

In addition to many other recent changes facing internal medicine residency programs, issues involving quality assurance in ambulatory training clinics have increased in importance, in part due to increasing JCAHO and Residency Review Committee standards. The Ambulatory Medicine Center, part of Kettering Medical Center, a tertiary community teaching program, is a major part of the ambulatory medicine experience for the internal medicine and transitional year residents.

DESCRIPTION OF COMPUTER SYSTEM

Since 1984, we have used OPUS III, a COSTAR-based system (Medical Software Systems, Chicago, IL), to capture all resident physician encounters. The system utilizes the MUMPS operating language. Computer-generated patient-specific summaries are used by residents for data retrieval. These also serve as specialized data capture "encounter" forms. Examples are included on the poster.

COMPONENTS OF THE QA PROGRAM

Our computerized quality assurance includes allergy audits, health screening audits (ie, influenza and pneumococcal vaccine), drug utilization and recall audits, review of specific management questions raised by the PRO or Dept. of Health, nursing care plan audits, and various reports to compare correlation between resident physician diagnosis and nursing diagnosis. A couple of categories are discussed below. Examples of all aspects of the QA program are included on the poster.

ALLERGY AUDITS

To assure that we have an allergy history on all of our patients, a report is generated that checks all patients to see if an allergy history is present on the chart. Since instituting this audit in the late '80s, our allergy information collection rate has risen from about 78% to 99%. The assurance that many other variables have been appropriately collected (such as height, weight, BP, signatures) are also quickly checked by a 100% audit.

DRUG RECALLS

As are all practices, we are periodically faced with the task of either modifying the way a medication is prescribed, or actually recalling a medication that has been determined by the FDA to be unsafe. When the medication encainide was determined by the FDA to be unsafe, we were able to identify all patients quickly and discontinuing the medication. When we were advised that there were new drug interactions between terfenadine (Seldane) and erythromycin / ketoconazole, we quickly identified 52 patients on both medications out of 133 patients on Seldane. Appropriate communication with our patients was then quickly carried out.

USE AND ANALYSIS OF REPORTS

An analysis of QA reports is performed by the managerial team, and important issues are reviewed in the QA Subcommittee, part of the organized quality assurance of the Medical Center. There are several reporting paths, including the residency program directors and the Quality Assurance Committee of the medical staff. Monthly feedback sessions are held for the residents by the Chief Resident and Program Directors to address specific problems.

CONCLUSIONS

By the use of a computerized quality assurance program, we have been able to quickly address questions raised by the PRO and Department of Health regarding specific patients. We have been able to implement complete audits of all provider records, and quickly accomplish drug utilization and recall audits. In addition, our routine health screening programs have been greatly enhanced.